

natalensis nilotica, Lado Enclave, and *Pyromelana flammiceps changamwenensis*, Changamwe, coast of British East Africa, secured by the Smithsonian African Expedition under Col. Theodore Roosevelt. The second paper deals wholly with Weaver Birds, four were obtained on the Childs Frick Expedition, the last one on the Smithsonian Expedition. The new forms with type localities are as follows: *Othyphantes fricki*, Sidamo, southern Abyssinia; *Hypargos niveoguttatus macrospilotus*, Meru Forest, British East Africa; *Aidemosyne cantans meridionalis*, Indunumara Mts., B. E. A., *Lagonosticta rubricata fricki*, Gardulla, Abyssinia; and *Aidemosyne inornata*, El Duceim, White Nile, Sudan.— W. S.

Shufeldt on Fossil Feathers and Fossil Birds.¹— In this paper Dr. Shufeldt discusses the various specimens of fossil feather impressions that have been described, illustrating most of them, and also presents some photographs of other specimens found in the Florissant formation in Colorado by Prof. T. D. A. Cockerell and others.

Two new species are based on bird remains in the Peabody Museum, Yale University. *Hebe schucherti* from the Green River Eocene of Wyoming, is a possible ally of the South American *Pteroptochidae*, although the author is not prepared to say positively what its affinities may be other than that it is passerine. *Yalavis tenuipes* is another passerine species about the size of a warbler, locality unknown.— W. S.

Gain, on Penguins of the Antarctic Regions.²— This interesting account with numerous excellent illustrations is reprinted from *Lâ Nature*. Dr. Gain was naturalist of the Charcot Expedition of 1909, which wintered at Petermann's Island and had ample opportunity for studying these interesting birds. His report upon them forms a convenient work of reference on the habits of a group with which the recent antarctic expeditions have made us more familiar than ever before, birds whose remarkable structure and peculiar actions arouse our keenest interest.— W. S.

Mathews' 'A List of the Birds of Australia.'³— Some months ago, much to our regret, we felt it necessary to comment adversely upon the

¹ Fossil Feathers and some heretofore undescribed Fossil Birds. *Journal of Geology*, XXI, No. 7, Oct.-Nov. 1913, pp. 628-652.

² The Penguins of the Antarctic Regions. By L. Gain. Smithsonian Report for 1912, pp. 475-482, plates 1-9. 1913.

³ A List of the Birds of Australia | By | Gregory M. Mathews, F. R. S. E. | Fellow of the Linnean and Zoological Societies of London | Member of the British Ornithologists' Union | Corresponding Fellow of the American Ornithologists' Union | Member of the Royal Australasian Ornithologists' Union | Author of | "The Birds of Australia" | Containing the Names and Synonyms Connected | with each *Genus*, *Species* and *Subspecies* of | Birds found in Australia, at present known to | the author. | [vignette]. Witherby & Co., 326 High Holborn, London, W. C. | 1913. roy 8vo. pp. i-xxiv + 1-332 + index and map of Australia showing type localities. [Edition limited to 270 copies.]

Check-list of Australian birds prepared by a Committee of the Royal Australasian Ornithologists' Union inasmuch as the list did not at all reflect the present status of Australian ornithology, while it rejected the principles of zoological nomenclature now in almost universal use. In the course of our remarks we expressed regret that the Committee could not have seen its way clear to avail itself of Mr. Gregory M. Mathews' laborious researches into the nomenclature of Australian birds.

While we have had no occasion to alter our views on this matter, we are gratified to find that Mr. Mathews has gone steadily along with his researches and has now embodied them in a 'List of the Birds of Australia' which represents the finished result of the investigations of which his 'Reference List,' good as it was, constituted only a preliminary outline. While still rigidly upholding the International Code of Nomenclature Mr. Mathews has gone farther and has relinquished such of his personal views as were at variance with the published 'opinions' of the International Commission, and accepted the generic names of Brisson. It is broadminded action of this kind, that gives us such high hope of attaining a uniform zoological nomenclature in the not very distant future.

Mr. Mathews' 'List' follows the plan of the last edition of the A. O. U. Check-List and the recent Hand-List of British Birds by Messrs. Hartert, Jourdain, Ticehurst and Witherby; giving binomial headings for the groups of subspecies, generic types and the method of their fixation, and the type locality for each species as well as its range. It is moreover an improvement upon these lists in that it gives a full synonymy for both genera and species and fixes types for the generic synonyms. The work thus becomes far more than a list of Australian birds, being an important contribution to the study of ornithological nomenclature.

As an authoritative Australian list it stands preëminent. The literature has been exhaustively studied, every point of nomenclature has been made to conform with the rulings and opinions of the only authoritative body that we have — the International Commission and personal opinion has been made subservient to majority rule. It is to be earnestly hoped that Australian ornithologists will be broadminded enough to realize that in order to have any permanency in nomenclature we must follow some authoritative rules, and that they will accept as their guide the splendid work that Mr. Mathews has produced. Much remains to be done on Australian birds but here is a solid foundation upon which to build. No human work is infallible, there will be additions to this list as well as eliminations and alterations — without them there could be no progress, and there are also legitimate differences of opinion as to just how much differentiation a form should exhibit to warrant recognition. These, however, are inevitable in any list and we cannot but feel that this work of Mr. Mathews is going to be the one followed by the progressive ornithologists of Australia, many of whom are evidently not in sympathy with the list prepared by their committee.

In his preface Mr. Mathews presents a historic review of systematic

ornithology in Australia, and discusses the whole nomenclature problem as well as the zoogeography of the region.

The volume as a whole contains an enormous amount of information and ornithologists both in Australia and elsewhere should feel grateful to Mr. Mathews for his painstaking researches and for presenting the results in such an available form.— W. S.

Witherby on the Moulting of the Rook.¹— The well known Rook of England and Europe and an eastern subspecies ranging to Japan differ from the Crows in having the face and upper throat bare of feathers in the adult, though they are normally feathered in juvenal birds. The method by which the feathers are lost has been a frequent subject for speculation and most writers seem to have preferred to speculate rather than to experiment, as frequently happens in similar cases. Mr. H. F. Witherby, however, by securing a good series of birds of all ages in the flesh, and studying them intelligently, has cleared up the whole matter. He finds that at the post-juvenal moult a new set of feathers is acquired and the bird has a fully feathered face which it retains until January or later. The feathers are then moulted simultaneously with the wearing of the body plumage as the breeding season approaches. As the feathers drop out the papillæ become active, but instead of producing feathers there arise only short 'pins' a millimeter or so in length, rarely terminating with short degenerate feather structures. The down feathers which are scattered here and there over the throat and face do not moult, and with the pins they suffer gradual abrasion until the next autumnal moult. At this and each succeeding post-nuptial moult the throat develops a covering of gray down which with a few degenerate feathers that appear with it soon wears away until the area is bare. The papillæ of the face do not seem ever to become active again after the post-juvenal moult.

Mr. Witherby has done an excellent piece of work in demonstrating exactly how and when this peculiar loss of feathers occurs. Why the feather papillæ should regularly become inactive he leaves to some one more conversant with feather development, and generously offers them his material.

While conducting this investigation on the moult of the head Mr. Witherby naturally took note of the sequence of plumage elsewhere, which he describes in detail and which is essentially the same as in our American Crow.— W. S.

Trevor-Battye's 'Camping in Crete.'²— This handsome volume forms a book of old world travel more than usually interesting to the

¹ The Sequence of Plumages of the Rook. With Special Reference to the Moulting of the "Face." By H. F. Witherby. *British Birds*, Vol. VII, No. 5, October 1, 1913, pp. 126-139.

² *Camping in Crete* | with Notes upon the Animal | and Plant Life of the Island | By | Aubyn Trevor-Battye | M. A., F. L. S., F. Z. S., F. R. G. S., etc. | Including a Description of certain Caves and their Ancient Deposits | By Dorothea M. A. Bate, M. B. O. U. | with thirty-two Plates and a Map. | Witherby & Co. | 326 High Holborn, London | 1913. Svo. pp. i-xxi + 1-308. Price 10s 6d.